



STATE OF MARYLAND

# DHHMH

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**July 17, 2009**

## Public Health & Emergency Preparedness Bulletin: # 2009:27 Reporting for the week ending 07/11/09 (MMWR Week #27)

### CURRENT HOMELAND SECURITY THREAT LEVELS

**National:** Yellow (ELEVATED) \*The threat level in the airline sector is Orange (HIGH)  
**Maryland:** Yellow (ELEVATED)

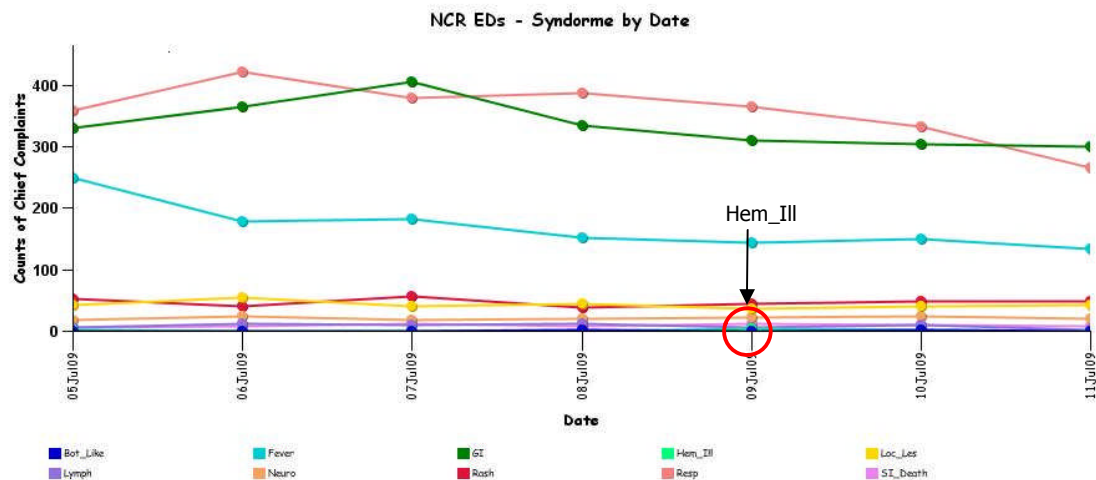
### SYNDROMIC SURVEILLANCE REPORTS

**ESSENCE (Electronic Surveillance System for the Early Notification of Community-based Epidemics):**

Graphical representation is provided for all syndromes, excluding the "Other" category, all age groups, and red alerts are circled. Note: ESSENCE – ANCR Spring 2006 (v 1.3) now uses syndrome categories consistent with CDC definitions.

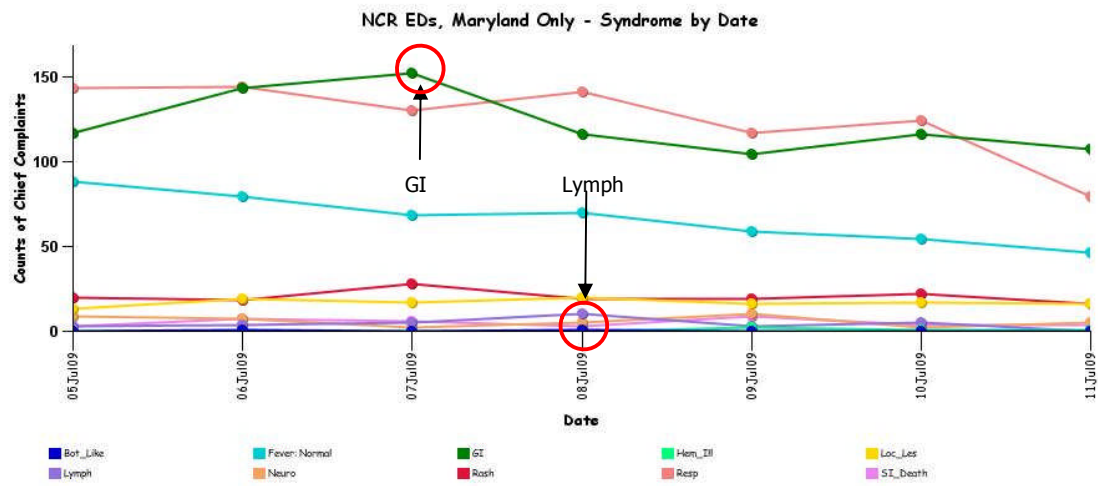
Overall, no suspicious patterns of illness were identified. Track backs to the health care facilities yielded no suspicious patterns of illness.

**\*\*Data for graph of NCR EDs is not complete due to technical issues.**

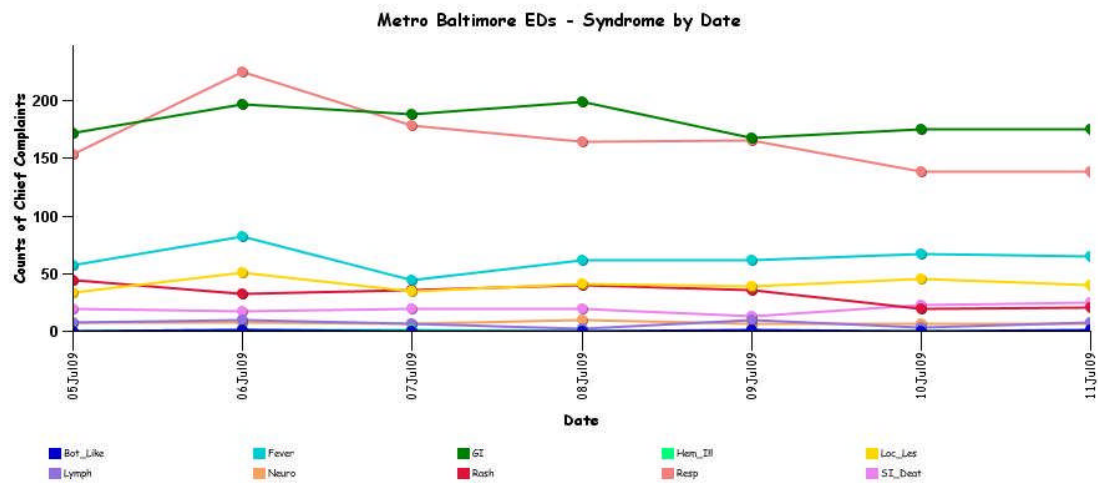


\* Includes EDs in all jurisdictions in the NCR (MD, VA, DC) under surveillance in the ESSENCE system.

**\*\*Data for graph of NCR EDs, Maryland Only is not complete due to technical issues.**



\* Includes only Maryland EDs in the NCR (Prince George's and Montgomery Counties) under surveillance in the ESSENCE system.

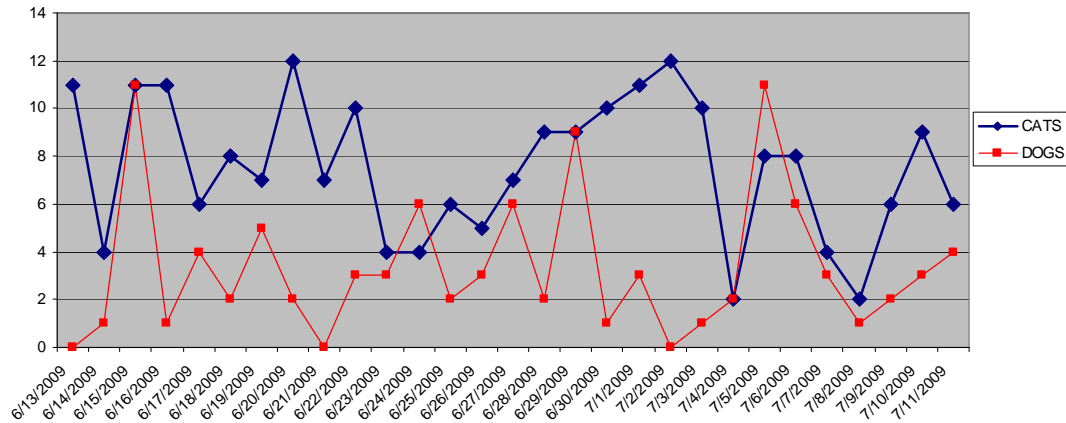


\* Includes EDs in the Metro Baltimore region (Baltimore City and Baltimore County) under surveillance in the ESSENCE system.

**\*\* Red Alerts are not indicated on this graph.**

**BALTIMORE CITY SYNDROMIC SURVEILLANCE PROJECT:** No suspicious patterns in the medic calls, ED Syndromic Surveillance and the animal carcass surveillance. Graphical representation is provided for animal carcass surveillance 311 data.

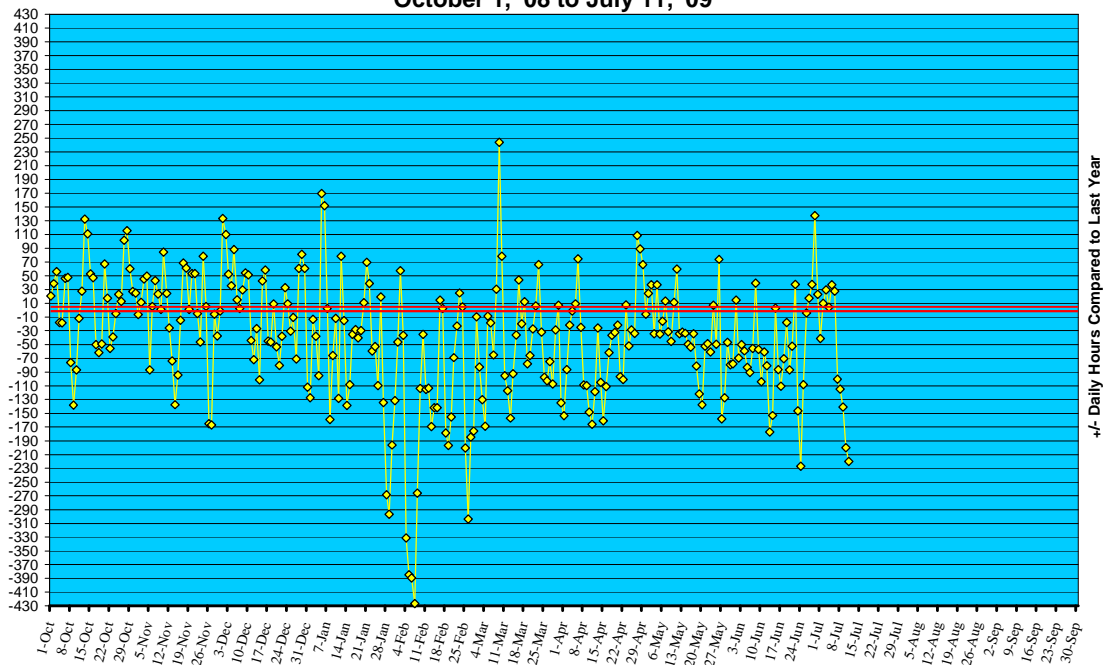
Dead Animal Pick-Up Calls to 311



#### REVIEW OF EMERGENCY DEPARTMENT UTILIZATION

**YELLOW ALERT TIMES (ED DIVERSION):** The reporting period begins 10/01/08.

Statewide Yellow Alert Comparison  
Daily Historical Deviations  
October 1, '08 to July 11, '09



## **REVIEW OF MORTALITY REPORTS**

**Office of the Chief Medical Examiner:** OCME reports no suspicious deaths related to BT for the week.

## **MARYLAND TOXIDROMIC SURVEILLANCE**

**Poison Control Surveillance Monthly Update:** Investigations of the outliers and alerts observed by the Maryland Poison Center and National Capital Poison Center in June 2009 did not identify any cases of possible terrorism events.

## **REVIEW OF MARYLAND DISEASE SURVEILLANCE FINDINGS**

### **COMMUNICABLE DISEASE SURVEILLANCE CASE REPORTS (confirmed, probable and suspect):**

<b>Meningitis:</b>	<b><u>Aseptic</u></b>	<b><u>Meningococcal</u></b>
New cases (July 05 – July 11, 2009):	25	0
Prior week (June 28 – July 04, 2009):	14	0
Week#27, 2008 (June 28 – July 04, 2008):	10	0

**OUTBREAKS: 9 outbreaks were reported to DHMH during MMWR Week 27 (July 5- July 11, 2009):**

#### **1 Gastroenteritis outbreak**

1 outbreak of SHIGELLOSIS associated with a Residential Facility

#### **1 Foodborne Gastroenteritis outbreak**

1 outbreak of FOODBORNE GASTROENTERITIS associated with a Restaurant

#### **5 Respiratory illness outbreaks**

1 outbreak of ILI/PNEUMONIA associated with a Nursing Home

1 outbreak of ILI associated with a Hospital

1 outbreak of ILI associated with a Camp

2 outbreaks of INFLUENZA associated with Camps

#### **2 Rash illness outbreaks**

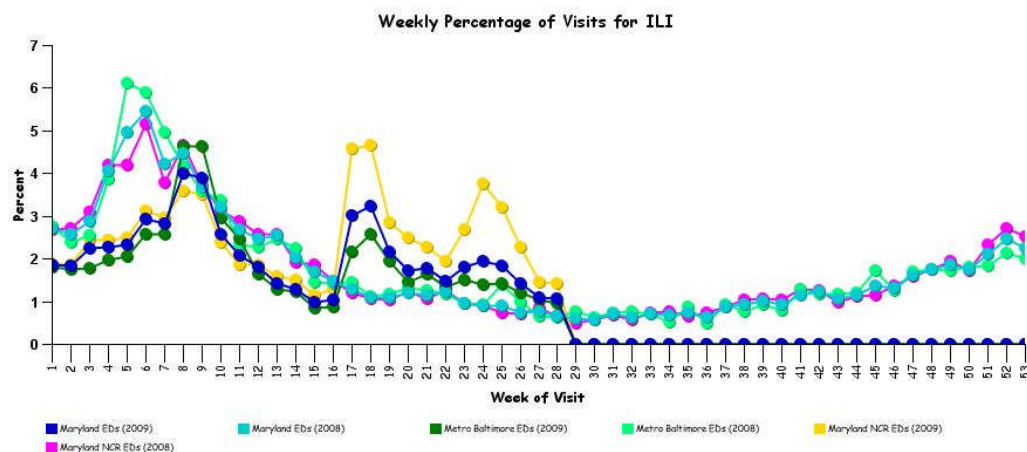
1 outbreak of SCABIES associated with an Assisted Living Facility

1 outbreak of RASH ILLNESS associated with a Hospital

**MARYLAND INFLUENZA STATUS:** Influenza activity in Maryland for Week 27 is WIDESPREAD.

## **SYNDROMIC SURVEILLANCE FOR INFLUENZA-LIKE ILLNESS**

Graph shows the percentage of total weekly Emergency Department patient chief complaints that have one or more ICD9 codes representing provider diagnoses of influenza-like illness. This graph does not represent confirmed influenza.



\*Graph shows proportion of total weekly cases seen in a particular syndrome/subsyndrome over the total number of cases seen. Weeks run Sunday through Saturday and the last week shown may be artificially high or low depending on how much data is available for the week.

## **PANDEMIC INFLUENZA UPDATE:**

**WHO Pandemic Influenza Phase:** Phase 6: Characterized by community level outbreaks in at least one other country in a different WHO region in addition to the criteria defined in Phase 5. Designation of this phase will indicate that a global pandemic is under way. Definition of Phase 5 is characterized by human-to-human spread of the virus into at least two countries in one WHO region. While most countries will not be affected at this stage, the declaration of Phase 5 is a strong signal that a pandemic is imminent and that the time to finalize the organization, communication, and implementation of the planned mitigation measures is short.

**US Pandemic Influenza Stage:** Stage 0: New domestic animal outbreak in at-risk country

**\*\*More information regarding WHO Pandemic Influenza Phase and US Pandemic Influenza Stage can be found at:**  
<http://bioterrorism.dhmm.state.md.us/flu.htm>

## **AVIAN INFLUENZA-RELATED REPORTS:**

**WHO update:** As of July 01, 2009, the WHO-confirmed global total of human cases of H5N1 avian influenza virus infection stands at 436, of which 262 have been fatal. Thus, the case fatality rate for human H5N1 is about 60%.

## **H1N1 INFLUENZA (Swine Flu):**

**INFLUENZA PANDEMIC (H1N1), OBESITY RISK FACTOR:** 11 Jul 2009, People who are obese but otherwise healthy may be at special risk of severe complications and death from the new influenza pandemic (H1N1) 2009 virus, U.S. researchers reported on 10 Jul 2009. They described the cases of 10 patients at a Michigan hospital who were so ill they had to be put on ventilators. 3 died. 9 of the 10 were obese, 7 were severely obese, including 2 of the 3 who died. The study, published in advance in the Centers for Disease Control and Prevention's (CDC) weekly report on death and disease, also suggests doctors can safely double the usual dose of oseltamivir, Roche AG's antiviral drug sold under the Tamiflu brand name. "What this suggests is that there can be severe complications associated with this virus infection, especially in severely obese patients," said CDC virus expert Dr. Tim Uyeki. "And 5 of these patients had ... evidence of blood clots in the lungs. This has not been previously known to occur in patients with severe influenza virus infections," Uyeki said. Dr. Lena Napolitano of the University of Michigan Medical Center and colleagues studied the cases of 10 patients admitted to the university's intensive care unit with severe acute respiratory distress syndrome caused by infection with H1N1. "Of the 10 patients, 9 were obese (body mass index [BMI] more than 30), including 7 who were extremely obese (BMI more than 40)," they wrote in their report. Their study was not designed to see if obesity or anything else poses a special risk factor for flu. But the researchers were surprised to see that 7 of the 10 patients were extremely obese. 9 had multiple organ failure, which can be seen in influenza, but 5 had blood clots in the lungs, and 6 had kidney failure. None has fully recovered, the researchers said. "The high prevalence of obesity in this case series is striking," the CDC's commentary accompanying the report reads. "Whether obesity is an independent risk factor for severe complications of novel influenza A (H1N1) virus infection is unknown. Obesity has not been identified previously as a risk factor for severe complications of seasonal influenza."

## **Resources:**

<http://www.cdc.gov/h1n1flu/>

<http://www.dhmm.maryland.gov/swineflu/>

## **NATIONAL DISEASE REPORTS**

**E. COLI O157, REFRIGERATED COOKIE DOUGH, UPDATE (Multistate):** 10 Jul 2009, The Food and Drug Administration said 9 Jul 2009 the strain of E. coli O157:H7 found in a sample of raw cookie dough collected at a Nestle USA manufacturing plant does not match the strain that has been linked to a 30-state outbreak, and they aren't sure how the dough was contaminated. The FDA and the CDC have been investigating whether the cookie dough was the source of the E. coli outbreak which has sickened at least 69 people in about 30 states. In June 2009, Nestle voluntarily recalled all Toll House refrigerated cookie dough products made at its Danville, Virginia, factory after the FDA told Nestle it suspected consumers may have been exposed to E. coli bacteria after eating the dough raw. On 29 Jun 2009, the FDA confirmed evidence of E. coli O157:H7 in a retained production sample of 16.5 oz. Nestle Toll House refrigerated chocolate chip cookie dough bar. But on 9 Jul 2009, FDA spokesman Mike Herndon said tests on the dough, which came from an unopened package, show the strains of E. coli don't match the strain linked to the outbreak. That could mean the dough may have been contaminated with multiple strains. But neither the FDA nor Nestle has discovered a probable source. (Food Safety Threats are listed in Category B on the CDC list of Critical Biological Agents) \*Non-suspect case

**HANTAVIRUS (Arizona):** 08 Jul 2009, A Minnesota woman who died from a hantavirus infection may have contracted the rodent-linked virus during a trip through the Grand Canyon, authorities said. The woman, whose name and hometown were not released, died 12 Jun 2009 at a hospital outside Arizona, said Trish Lees, a spokeswoman for the Coconino County Arizona Health Department. The woman, in her early 50s, may have contracted the disease during a family boating trip on the Colorado River in mid- to late-May 2009, Lees told the Arizona Daily Sun, Flagstaff in a story published Tue 23 Jun 2009. It was the 1st hantavirus infection case linked to Arizona this year. One case was reported last year in the state, Lees said. Hantavirus infections are contracted by inhaling infected particles from mouse droppings and urine. The woman told health officials she wasn't aware of any recent contact with mice. (Emerging Infectious Disease are listed in Category C on the CDC list of Critical Biological Agents) \*Non-suspect case

**HANTAVIRUS (New Mexico):** 08 Jul 2009, The state health department reports that a 65-year-old San Miguel County man has contracted a hantavirus infection, the 2nd confirmed case of the year. The man has been hospitalized at the University of New Mexico Hospital. The state health department is conducting an environmental investigation to try to determine where the man contracted the virus and whether people may be at risk. Hantavirus infections can cause a potentially fatal disease that is transmitted to humans by infected rodents through their urine, droppings and saliva. The deer mouse is the primary carrier of the virus. Symptoms of hantavirus infection include fever, muscle aches, chills, headaches, nausea, vomiting, diarrhea, abdominal pain and coughing. Chances of recovery are better if treatment is sought promptly, according to the health department. (Emerging Infectious Disease are listed in Category C on the CDC list of Critical Biological Agents) \*Non-suspect case

**SCOMBROID POISONING, TUNA (New England):** 06 Jul 2009, North Coast Seafood has voluntarily removed from sale Fresh Tuna Steaks that were sold at Shaw's, Star Market and Big Y Stores in New England. The recalled product was sold between 20 thru 24 Jun 2009 to retail stores throughout New England and was removed from sale on 24 Jun 2009. The product was recalled because of possible elevated levels of histamine that may result in symptoms that generally appear within minutes to an hour after eating the affected fish. The following are the most common symptoms of scombroid poisoning. However, each individual may experience symptoms differently. Symptoms may include: tingling or burning sensation in the mouth, rash on the face and upper body, hives and itching of skin, nausea, vomiting or diarrhea. There have been 3 reported incidents by consumers. North Coast Seafood feels that while these were isolated incidents, every precautionary measure should be taken when it comes to consumer safety. This recall does not impact any other fish or seafood sold by Northcoast. Customers who purchased this tuna and may have frozen it, are urged to bring the product back to the store for a full refund or replacement. (Food Safety Threats are listed in Category B on the CDC list of Critical Biological Agents) \*Non-suspect case

## **INTERNATIONAL DISEASE REPORTS**

**BOVINE BRUCELLOSIS (Fiji):** 08 Jul 2009, Fiji's ministry of agriculture says it has slaughtered more than 30 of the 282 cattle infected with the brucellosis bacteria. The disease causes late-term abortion and infertility in cattle, while it can also lead to fever in humans. The ministry's veterinarian officer, Robin Achari, says the infected cattle are distributed among 14 farms in North Tailevu, with one suspected case in the south. Mr Achari says all sick animals have been quarantined and will be killed. "We're slaughtering, removing all the positive reactors from the farms as soon as possible. We have just managed to slaughter 32 at this point in time; and the meat has been inspected and cleared, if not, then discarded." Robin Achari says the meat is safe for consumption, but people should stop drinking unpasteurized milk or risk infection. However, New Zealand's Food Safety Authority senior advisor, Kathleen Shaw, says cooking meat should make it safe to eat, but adds it's not good practice to eat products from any sick animal. (Brucellosis is listed in Category B on the CDC list of Critical Biological Agents) \*Non-suspect case

**BOTULISM, AVIAN, FISH (Ireland):** 08 Jul 2009, A strain of botulism, caused by bacteria emitting lethal toxins, seems the most likely explanation for the large number of deaths of swans, ducks and fish at The Lough in Cork. Cork City Council's chief veterinary officer, Diarmuid Dooge, said both wild fowl and fish would be affected by Clostridium botulinum, a form of bacteria released from spores on the silt bed of the lake. More than 30 previously healthy swans and ducks and 5 carp are suspected to have been killed by the toxic bacteria attaching to vegetation that is eaten by both the birds and fish at the picturesque wildlife sanctuary. The sprouting of the spores, and the subsequent release of toxins that attack the fish and birds' central nervous systems, may be attributed to the recent humidity and a lowering of the water level. These conditions will have encouraged the bacteria to "flower." It was initially thought that a virus had been transmitted to the resident fowl by a wild duck. But that has been ruled out following tests at the Regional Veterinary Laboratory at Model Farm Road. Avian influenza, more commonly known as the dreaded bird flu, was also quickly ruled out, leaving Clostridium botulinum as the likely culprit. Mr Dooge said it was vital that all carcasses were removed from the water and the central island as quickly as possible to prevent the lethal disease from attacking more wildlife. He predicted more fowl would die before the situation was brought under control. "It is vital we continue to remove all dead and dying birds. If maggots get onto a carcass they will concentrate the toxins and make them easier to spread," he said. As there is no laboratory in Ireland equipped to confirm cases of botulism -commonly known as a potentially lethal strain of food poisoning -samples will have to be sent to Scotland and it is expected it will take days before the results are known. "We need confirmation of this. We need a scientific explanation," Mr Dooge said. He has also called in the aquatic services section at University College Cork to analyze the water quality at the 9-acre lake near Togher. "It fits the pattern of Clostridium botulinum as both ducks and fish are susceptible to it," Mr Dooge said. (Botulism is listed in Category A on the CDC list of Critical Biological Agents) \*Non-suspect case

**NOROVIRUS, CRUISE SHIP (Scotland):** 07 Jul 2009, A total of 4 people are being treated in hospital after an outbreak of suspected norovirus on board a cruise liner. The Marco Polo will remain tied up at Invergordon on the Cromarty Firth until 8 Jul 2009 while GPs (physicians) continue to assess passengers and crew. NHS [National Health Service] Highland said 380 people had been assessed after feeling unwell. A 74-year-old man died of an apparent heart attack. The tour operator said his death was not related to the virus, but that has not been confirmed. 4 people were initially taken to Raigmore Hospital in Inverness for treatment. One was allowed to return to the vessel, but another passenger was subsequently admitted to hospital. A post-mortem examination will be carried out on the man who died, who is thought to have been from Norfolk. In a statement, cruise operators Transocean Tours said his death was unrelated to the virus outbreak, and that the ship had been inspected by local health officials. A passenger on the ship said the situation for those who had not taken ill was bearable and the crew was trying to keep passengers as well informed of developments as they could. She said: "Generally speaking on board everything is calm. The crew is doing their utmost to please everybody." NHS Highland said about 200 people were suffering from sickness and abdominal cramps - symptoms of the virus. Local GPs and community nurses have boarded the Marco Polo to assist the ship's doctor. It has emerged that passengers on the previous voyage of the Marco Polo who disembarked on 4 Jul 2009 were also struck with a sickness bug. Transocean Tours said this was gastroenteritis and affected a small number of people. The company said the ship was given a clean bill of health. A Transocean Tours spokesman said the company's environmental and health officers had been working closely with the local authorities and that a full outbreak control plan in line with UK public health requirements was in place and being followed closely. Scottish Health Secretary Nicola Sturgeon told BBC Radio's Good Morning Scotland program it was a "very concerning situation" for those on board the ship and those in the local community. She said it was being dealt with by local agencies and that she was being regularly updated on developments. (Food Safety Threats are listed in Category B on the CDC list of Critical Biological Agents) \*Non-suspect case

**ANTHRAX, BOVINE (Israel):** 06 Jul 2009, On 30 Jun 2009 a cow, from a herd of some 50 animals grazing in the Megiddo (also known as Armageddon) area, in the north of Israel, was found dead with blood oozing from its natural orifices. The cow's spleen was removed (contrary to recommendations) and taken to the Kimron Veterinary Institute. The carcass was incinerated in a hole dug for that purpose (about 2 meters deep) and which was then filled in. Anthrax was diagnosed based on microscopy, culture and PCR examinations of the spleen. The area the herd grazed on was not known to be contaminated. It has been used for several decades and the affected herd has been grazing on it for the last 2 months. The day after the diagnosis the herd was removed from the pasture and vaccinated. One cow, showing mild symptoms of general malaise, with a temperature of 103.8 F, was treated with antibiotics and vaccinated thereafter. No additional cases of anthrax occurred. The origin of the contamination is unknown. A small stream of water flows through the area. However, since it originates a few kilometers from the relevant area and no cases of anthrax have been known to occur in the region, it is unlikely to be the source of the microorganism. It is likely that a limited number of old 'hot spots' exist and the affected cow had the misfortune to feed on one. The fact that Israel is in a period of drought might have acted as a risk factor. Anthrax in Israel, while very common till the middle of the last century, has become a very rare occurrence there, sometimes with intervals of several years during which no cases are diagnosed. In fact, except for the present case, currently only one endemic area exists, in the south of the country. (Anthrax is listed in Category A on the CDC list of Critical Biological Agents) \*Non-suspect case

## **OTHER RESOURCES AND ARTICLES OF INTEREST**

More information concerning Public Health and Emergency Preparedness can be found at the Office of Preparedness and Response website: <http://bioterrorism.dhmh.state.md.us/>

Maryland's Resident Influenza Tracking System: [www.tinyurl.com/flu-enroll](http://www.tinyurl.com/flu-enroll)

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**NOTE:** This weekly review is a compilation of data from various surveillance systems, interpreted with a focus on a potential BT event. It is not meant to be inclusive of all epidemiology data available, nor is it meant to imply that every activity reported is a definitive BT event. International reports of outbreaks due to organisms on the CDC Critical Biological Agent list will also be reported. While not "secure", please handle this information in a professional manner. Please feel free to distribute within your organization, as you feel appropriate, to other professional staff involved in emergency preparedness and infection control.

For questions about the content of this review or if you have received this and do not wish to receive these weekly notices, please e-mail me. If you have information that is pertinent to this notification process, please send it to me to be included in the routine report.

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